WHAT IS CLAIMED IS:

1.   An image processing apparatus comprising:

a plurality of rendering means for respectively rendering color component images on the basis of data common to the respective color components; and

conversion means for converting the rendered color component images into color component images for printing in synchronism with operation of a printer engine.

2.   The apparatus according to claim 1, wherein each of said plurality of rendering means comprises a memory having a memory capacity large enough to render at least a two-band color component image obtained by dividing a page into bands.

3.   The apparatus according to claim 2, wherein said memory is divided into areas in units of bands, and the divided areas are alternately used for the image rendering operation and outputting of an image to said conversion means.

4.   The apparatus according to claim 1, further comprising rendering control means for respectively supplying the common data to each of said plurality of rendering means at substantially the same time and controlling said rendering means to simultaneously render additive color mixture images.

5.   The apparatus according to claim 1, further comprising output means for the color component images for printing to the printer engine in accordance with the operation of the printer engine.

6.   The apparatus according to claim 5, wherein said output means comprises delay means for compensating for timing differences in forming the respective color component images in the printer engine.

7.   The apparatus according to claim 1, wherein the data common to the respective color components is made up of a display list and print element data.

8.   The apparatus according to claim 7, wherein the display list is a list of print elements obtained by dividing a print image and arranged in an order of occurrence.

9.   The apparatus according to claim 7, wherein the print element data is image data representing one of a character, symbol, graphic pattern, color data, and image data.

10.   An image processing method comprising the steps of:
        rendering color component images on the basis of data common to the respective color components; and
        converting the rendered color component images into color component images for printing in synchronism with operation of a printer engine.

11.   The method according to claim 10, further comprising the step of rendering a color component image in units of bands by using a memory having a memory capacity enough to render at least a two-band image.

12.   The method according to claim 11, further comprising the step of dividing said memory into areas in units of bands, and alternately using the divided areas for the image

rendering operation and outputting of an image to the
conversion.

13.   A computer program product comprising a
computer-readable medium storing program code for image
5   processing, said product comprising:

code for rendering color component images on the basis
of data common to the respective color components; and

code for converting the rendered color component
images into color component images for printing in
10 synchronism with operation of a printer engine.